

Experiment Name	PI(s)	Institution	Letter of Interest	Memorandum of Understanding	Brief Description
LUX: Development of a large liquid xenon dark matter detector	Rick Gaitskell	Brown	Yes	Yes	Direct Detection of Dark Matter using cryogenic liquid Xe, detection of signals and separation of signal from background using scintillation light. Detector requires several meters of water shielding to reduce backgrounds. 4850L Davis Cavity is appropriate
	Tom Shutt	Case Western			
Collaborative Research Towards Transparent Earth	Steven Glaser	UCB	Yes	Yes	This proposal presents a plan to install and operate a permanent seismic observatory illuminating the volume of the Homestake Mine from all six possible directions. We have chosen the Homestake DUSEL site because it offers a unique opportunity - the large
	Lane Johnson	UCB			
	Bill Roggenthen	SDSM&T			
Low Background Counting Facility, DOE BES ESPOr	Dongming Mei	USD	Yes	Yes	Develop a state-of-the-art Low Background Assay Facility in the Davis Cavity (4850L)
	Bill Roggenthen	SDSM&T			
miniCLEAN	Andrew Hime	LANL	Yes	MOU under discussion	Direct Detection of Dark Matter using cryogenic noble gases.
Liquid Argon Dark Matter	Dongming Mei	USD	Yes	MOU under discussion	Direct Detection of Dark Matter using cryogenic noble gases.
	Andrew Hime KTL	LANL LBNL			
Homestake: Biological, Chemical and Geological Sampling	Sookie Bang	SDSM&T	Yes	Yes	Site Characterization and baseline establishment for biology, chemistry, hydrology, and geology
	Mark Conrad	LBNL			
Majorana: Neutrinoless double beta decay R&D	John Wilkerson	U.W.	Yes	MOU being developed August 2007	Development of ultrapure materials, low background counting and Ge detector demonstration module
	Steve Elliott	LANL			
Large Cavity Development and R&D	Milind Diwan	Brookhaven	Yes	Yes	Develop plans for large cavities and water-Cerenkov detectors for nucleon decay and long baseline neutrino experiments
	Ken Lande	Penn			
Carbon Sequestration Experimental Design	Joe Wang	LBNL	Yes	Yes	Development of experimental designs for carbon sequestration facilities and the behavior of super-critical CO ₂ in the underground
	Kevin Lesko	LBNL			

Dark Matter

Geo/seismic array

Low Background Counting

Dark Matter

Dark Matter

Geo/Bio



Neutrinoless $\beta\beta$

Large Cavities, LBL vs

Carbon Sequestration